

## REMARKS

### I. Summary of Office Action

Claims 1-20 are pending in the application.

The Examiner rejected claims 1-17 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention.

The Examiner rejected claims 1, 11, 16, and 18 under 35 U.S.C. § 103(a) as being unpatentable over Bosack U.S. Patent No. 5,088,032 (hereafter, "Bosack") in view of Beshai et al. U.S. Patent No. 6,667,956 (hereinafter, "Beshai").

Claims 2, 17, 19, and 20 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Bosack in view of Beshai and McCanne U.S. Patent No. 6,785,704 (hereinafter, "McCanne").

Claims 8-10 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Bosack in view of Beshai and Heddaya et al. U.S. Patent No. 6,622,157 (hereinafter, "Heddaya").

Lastly, Claims 3-7 and 11-15 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Bosack in view of Beshai and Denman et. al U.S. Patent No. 6,490,451 (hereinafter, "Denman").

### II. Summary of Applicants' Reply

Applicants have amended claims 1, 2, 3, 5, 6, 7, 8, 11, 16, 17, and 18 and added new claim 21. No new matter has been added by these amendments to the claims or by new claim 21.

The Examiner's rejections are respectfully traversed and new claim 21 is discussed.

Reconsideration of this application is respectfully requested.

**III. The Amendments to the Claims and  
The Rejections of Independent Claims 1-17 Under 35 U.S.C. §112**

The Examiner rejected claims 1-17 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention.

In order to overcome the rejections under 35 U.S.C. §112, Applicants have amended claims 1, 2, 3, 5, 6, 7, 8, 11, 16, 17, and 18 as indicated in the Listing of Claims of this paper. The amendments to these claims are fully supported and justified by the specification and drawings as originally filed. No new matter has been added.

Therefore, Applicants respectfully request that the Examiner withdraw the rejections of claims 1-17 under 35 U.S.C. §112.

**IV. The Rejections of Independent Claims 1 and 11 Under 35 U.S.C. §103(a)**

The Examiner rejected claims 1 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Bosack in view of Beshai. The Examiner's rejection of these claims is respectfully traversed.

Applicants' independent claims 1 and 11 relate to networks comprising a plurality of nodes interconnected by links. As defined by independent claim 1, this networks includes:

a path between a first Node and a second Node that includes at least a third Node between said first Node and said second Node being determined from one of said coordinate labels assigned to said first Node and one of said coordinate labels assigned to said second Node

Because the path of claim 1 includes "at least a third Node between said first Node and said second Node," the first Node and second Node are non-adjacent along that path.

Bosack, on the other hand, discusses a method and system for routing data transmissions among computer networks that are interconnected with a series of gateways. Each gateway determines the desirability of using certain data paths to destination computers, wherein the paths are defined simply by the next hop to an adjacent node on each path.

Beshai discusses a multi-class digital network that maintains lists of the first adjacent nodes along paths to other nodes.

In rejecting the claims, the Examiner correctly admitted that "Bosack does not explicitly disclose non-adjacent Node being determined from one of said coordinate labels assigned to said

first Node and one of said coordinate labels assigned to said second Node” (Office Action, page 4). Nevertheless, the Examiner asserted that Beshai “discloses a non-adjacent node being determined from one of said coordinate labels,” and that it would have been obvious to combine features of Bosack and Beshai to make obvious the claims.

Contrary to the Examiner’s assertion, however, Applicants respectfully submit that Bosack and Beshai do not show or suggest, “a path between a first Node and a second Node that includes at least a third Node between said first Node and said second Node being determined from one of said coordinate labels assigned to said first Node and one of said coordinate labels assigned to said second Node.”

In support of his argument that Beshai “discloses a non-adjacent node being determined from one of said coordinate labels,” the Examiner pointed to column 6 lines 30-40 of Beshai. In this section, Beshai describes a “node control element” that has “a list of candidate routes to each destination.” This “list of candidates” includes “a direct route, a set of first-choice routes and a set of second choice routes” (column 6, lines 31-36). However, neither the “list of candidates” as a whole, any of the parts that make up the list of candidates, nor anything else in Beshai shows or suggests “a path between a first Node and a second Node that includes at least a third Node between said first Node and said second Node being determined from one of said coordinate labels assigned to said first Node and one of said coordinate labels assigned to said second Node.”

More particularly, the “list of candidates” in Beshai does not indicate any path to a node that is not directly connected. Instead, the “list of candidates” “only includes the first adjacent node along the shortest path to the destination” (column 6, lines 36-38). In addition to this clear definition of the “list of candidates,” FIG. 4 of Beshai demonstrates that the contents of each of the components of a “list of candidates” contains only adjacent nodes. For example, as shown in FIG. 3, for node 0, the listed nodes in FIG. 4 are 11, 5, 6, 4, and 7, each of which are adjacent to node 0.

Likewise, the routing in Beshai is not determined “from one of said coordinate labels assigned to said first Node and one of said coordinate labels assigned to said second Node that includes at least a third Node between said first Node and said second Node.” It is instead determined, for example, by “hop-by-hop” routing (column 11, line 25). For example, referring to FIG. 2 of Beshai, a route from node 1 to 11 might be determined as follows. First, it would be

determined that node 2 is the next hop along a path from node 1 to node 11. At this point, a packet would be sent to node 2. Upon reaching node 2, it may be known that node 3 is a possible next hop and the packet may progress to node 3. Upon reaching node 3, it may be seen that node 3 can reach node 11 directly, and the packet may be sent to node 11. Notice that, not only did this process use information from each node along the way, it never used any information from destination node 11.

Thus, the combination of Bosack and Beshai asserted by Examiner does not show or suggest every limitation of the claims because, as discussed above, for example, it does not show or suggest determining a path from a “coordinate label assigned to the said first Node” and a coordinate label “assigned to said second Node,” wherein the path “includes at least a third Node between said first Node and said second Node” as required by claim 1. Therefore, Applicants respectfully submit that, for at least these reasons, the Examiner’s rejections of claims 1 and 11 are improper and should be withdrawn.

#### **V. The Rejections of Independent Claims 16 and 18 and Under 35 U.S.C. §103(a)**

The Examiner also rejected claims 16 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Bosack in view of Beshai. As recited in the claims, these coordinate labels “represent[] a path through said network from one of said plurality of second Nodes to which it is assigned to said first Node.” As with claims 1 and 11, the path being determined is between nodes that are non-adjacent along that path. For example, claim 16 requires “determining a path from [a] source Node to [a] destination Node by combining one coordinate label of said source Node and one coordinate label of said destination Node.” Thus, the path being determined from the source to the destination is through at least one additional node, and is determined using information from the source node and destination node. Similarly, claim 18 requires that “each coordinate label represent[s] a path from said Node to a particular other Node of said network that includes at least a third Node between said first Node and said second Node.” Accordingly, for the same reasons discussed above regarding claims 1 and 11, Applicants respectfully submit that the Examiner’s rejections of claims 16 and 18 are improper and should be withdrawn.

**VI. The Rejection of Dependent Claims 2, 17, 19, and 20 Under 35 U.S.C. § 103(a)**

Applicants respectfully submit that claims 2, 17, 19, and 20, each of which depends from one of independent claims 1, 11, 16, and 18, are allowable for at least the same reasons that the independent claims are patentable as set forth above. Therefore, applicants respectfully request that the Examiner withdraw the rejections of claims 2, 17, 19, and 20.

**VII. The Rejections of Claims 8-10 Under 35 U.S.C. §103(a)**

The Examiner rejected claims 8-10 under 35 U.S.C. § 103(a) as being unpatentable over Bosack in view of Beshai and Heddaya. Claim 8 requires that “a path between a first Node and a second Node that includes at least a third Node between said first Node and said second Node being determined from one of said coordinate labels assigned to said first Node and one of said coordinate labels assigned to said second Node.” Claims 9 and 10 both depend from claim 8. For the same reasons discussed above regarding claims 1 and 11, Applicants respectfully submit that the Examiner’s rejections of claims 8-10 are improper and should be withdrawn.

**VIII. The Rejections of Claims 3-7 and 11-15 Under 35 U.S.C. §103(a)**

The Examiner rejected claims 3-7 and 11-15 under 35 U.S.C. § 103(a) as being unpatentable over Bosack in view of Beshai and Denman. Claim 3 requires that “a path between a first Node and a second Node that includes at least a third Node between said first Node and said second Node being determined from one of said coordinate labels assigned to said first Node and one of said coordinate labels assigned to said second Node.” Claims 4-7 each depends from claim 3 and claims 12-15 each depends from claim 11. Therefore, for the same reasons discussed above regarding claims 1 and 11, Applicants respectfully submit that the Examiner’s rejections of claims 3-7 and 11-15 are improper and should be withdrawn.

**IX. New Claim 21**

Claim 21 has been added to more particularly define the invention. No new matter has been added and this claim is fully supported and justified by the original claims and drawings. For example, this claims is supported by paragraph 61 of the specification.

**X. Conclusion**

Applicants respectfully submit that, as described above, the cited references do not show or suggest the combination of features recited in the claims. Applicants do not concede that the cited references show any of the elements recited in the claims. However, applicants have provided specific examples of elements in the claims that are clearly not present in the cited prior art.

Applicants strongly emphasize that one reviewing the prosecution history should not interpret any of the examples applicants have described herein in connection with distinguishing over the prior art as limiting to those specific features in isolation. Rather, applicants assert that it is the combination of elements recited in each of the claims, when each claim is interpreted as a whole, which is patentable. Applicants have emphasized certain features in the claims as clearly not present in the cited references, as discussed above. However, applicants do not concede that other features in the claims are found in the prior art. Rather, for the sake of simplicity, applicants are providing examples of why the claims described above are distinguishable over the cited prior art.

Applicant wishes to clarify for the record, if necessary, that the claims have been amended to expedite prosecution. Moreover, applicant reserve the right to pursue the original subject matter recited in the present claims in a continuation application.

Any narrowing amendments made to the claims in the present Reply are not to be construed as a surrender of any subject matter between the original claims and the present claims; rather merely applicants' best attempt at providing one or more definitions of what the applicants believe to be suitable patent protection. In addition, the present claims provide the intended scope of protection that applicant are seeking for this application. Therefore, no estoppel should be presumed, and applicants' claims are intended to include a scope of protection under the Doctrine of Equivalents.

Further, applicants hereby retract any arguments and/or statements made during prosecution that are rejected by the Examiner during prosecution and/or that are unnecessary to obtain allowance, and only maintain the arguments that persuade the Examiner with respect to the allowability of the patent claims, as one of ordinary skill would understand from a review of the prosecution history. That is, applicants specifically retract statements that one of ordinary

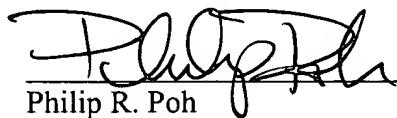
Docket No. 19240-225  
(previously 18704-015)

Express Mail Label No. EV842149115US

skill would recognize from reading the file history as not necessary, not used and/or rejected by the Examiner in allowing the patent application.

For at least the reasons set forth above, applicants respectfully submit that this application, as amended, is in condition for allowance. Reconsideration and prompt allowance of the application are respectfully requested.

Respectfully submitted,



Philip R. Poh  
Agent for Applicants  
Registration No. 51,176

**Wilmer Cutler Pickering Hale and Dorr LLP**  
399 Park Avenue  
New York, NY 10022-4614  
(212) 230-8800

Dated: June 8, 2006